



Shared Streets, Slow Streets

A Dutch perspective on good street design

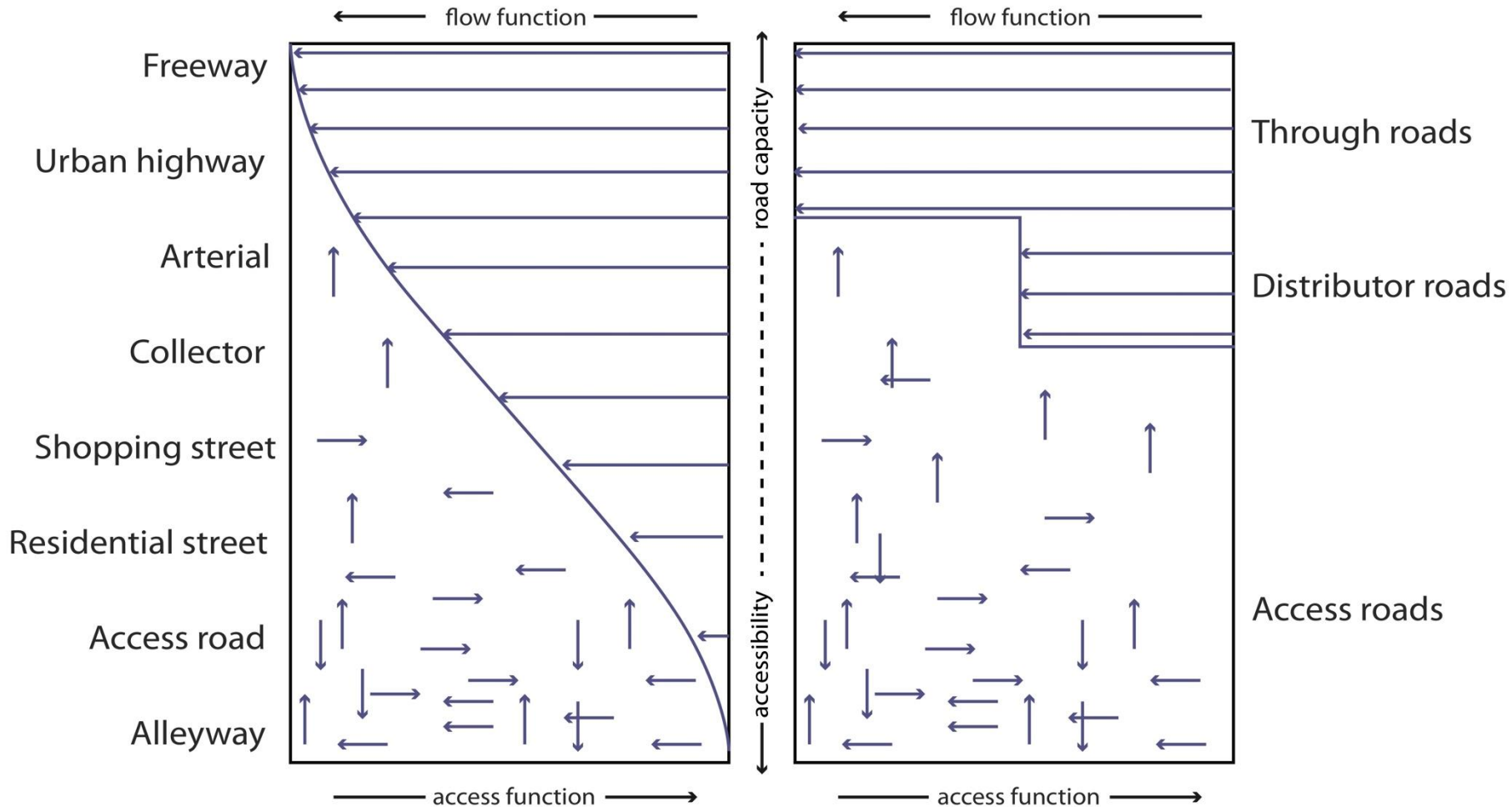
Creating a living city!





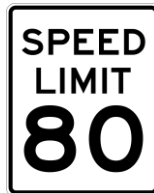
- Shared initiative from national, provincial and municipal governments
- Implemented from 1997, still responsible for a massive decrease of fatalities
- Aims at reducing volume and severity of traffic incidents on all roads (traffic fatalities are unethical)
- Incorporates infrastructure, but also information/education, enforcing, vehicle safety, traffic regulation.

Sustainable Safety / Vision Zero



Classification in the Netherlands

Highway



Rural arterial road



Rural road



Urban highway



Arterial road



Local street



Classification in the Netherlands

Highway



Rural arterial road



Rural road



Urban highway



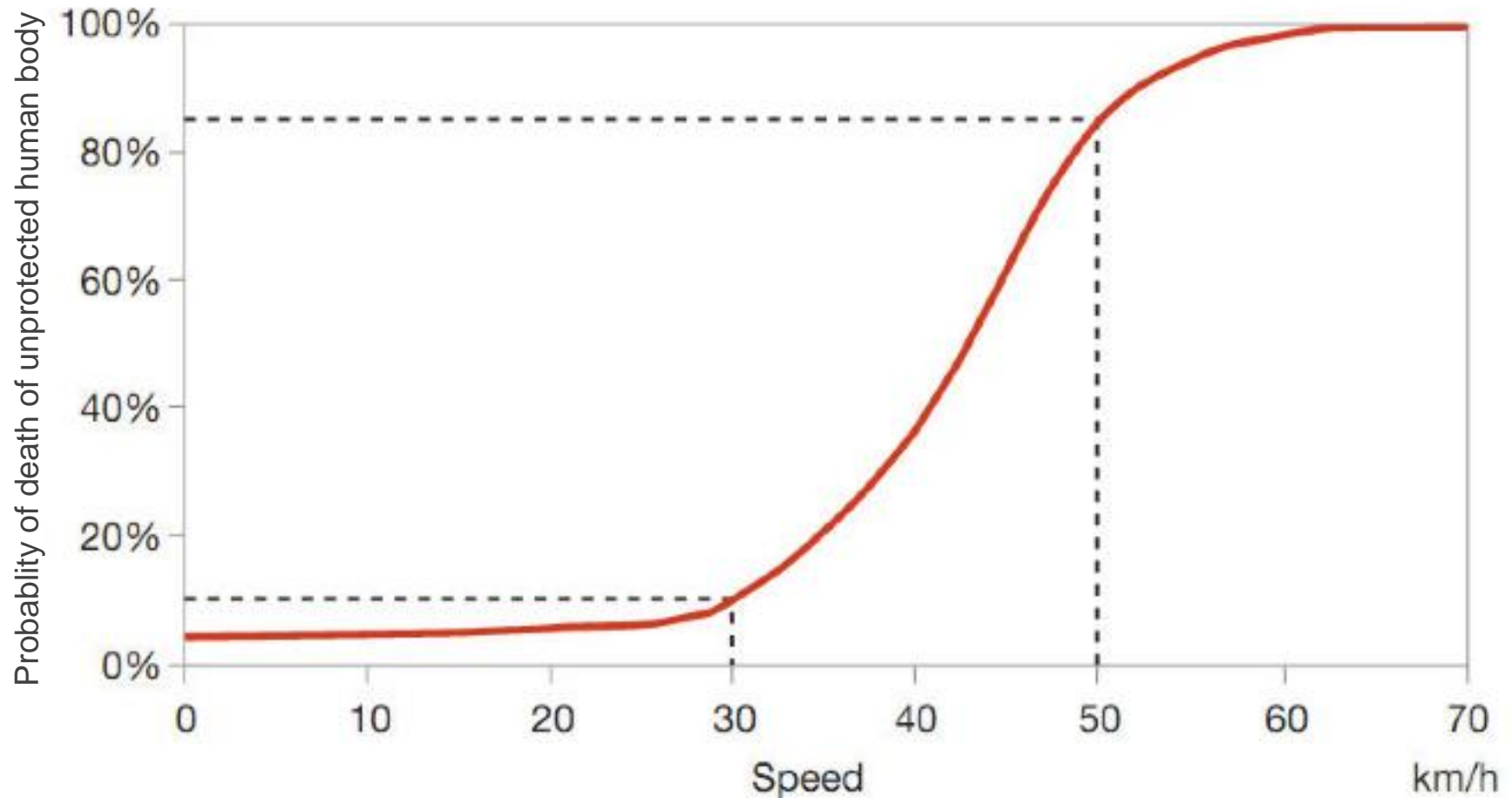
Arterial road



Local street

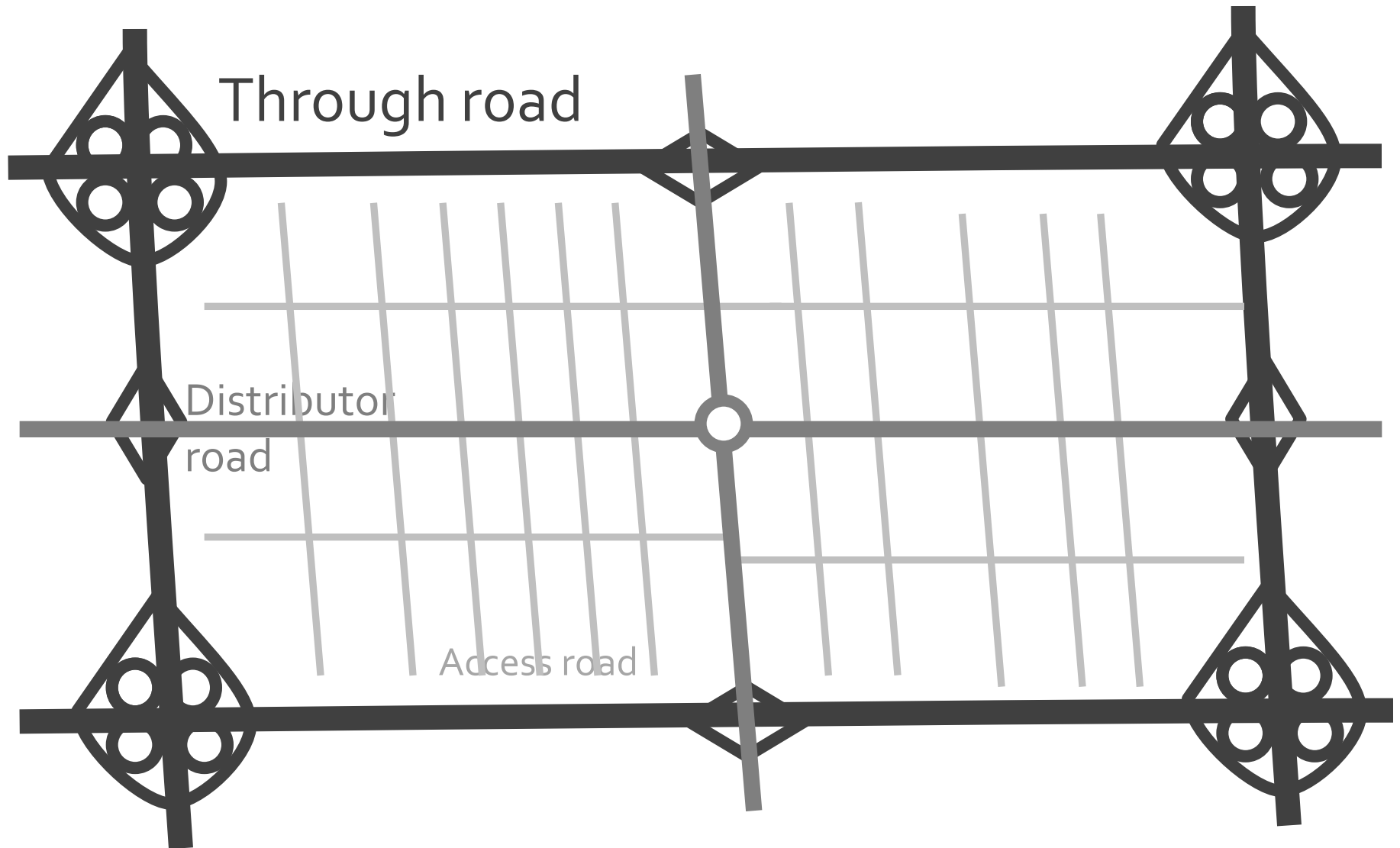


Probability of fatality

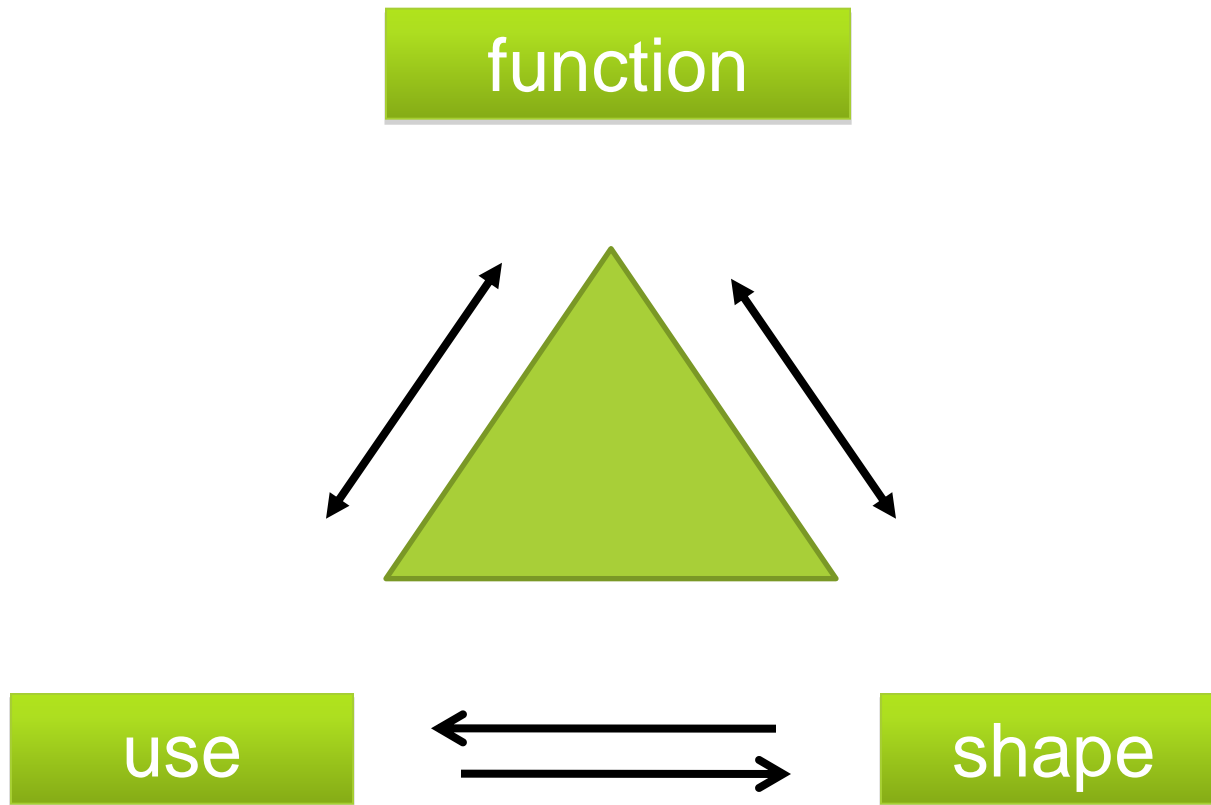


Source: OECD/ECMT (2006)

Logical hierarchical network



- Aim for the balance between the use, the form and the function of the road

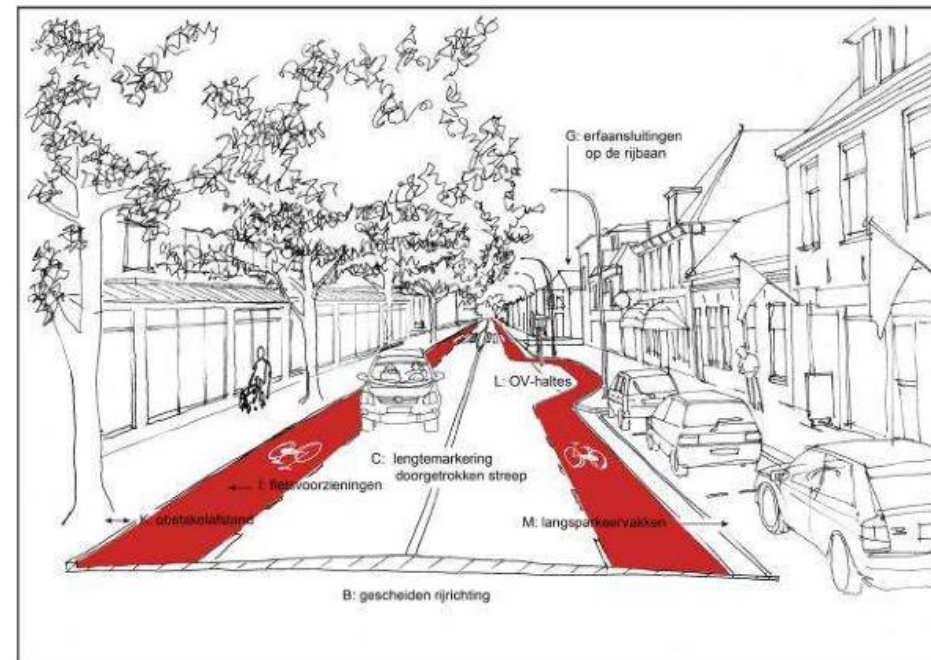


Form recognizable ensures safe use

- 50 km/h Distributor Roads: Complete Streets



Ideal form of distributor road



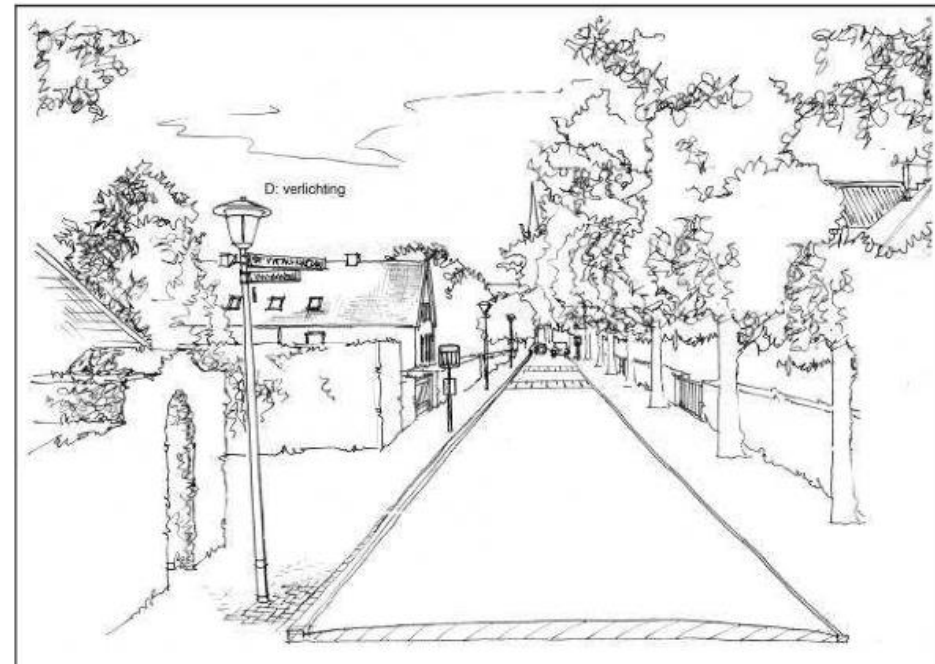
Minimal form of distributor road

Form recognizable ensures safe use

- 30 km/h roads: Access roads



Ideal form of access road

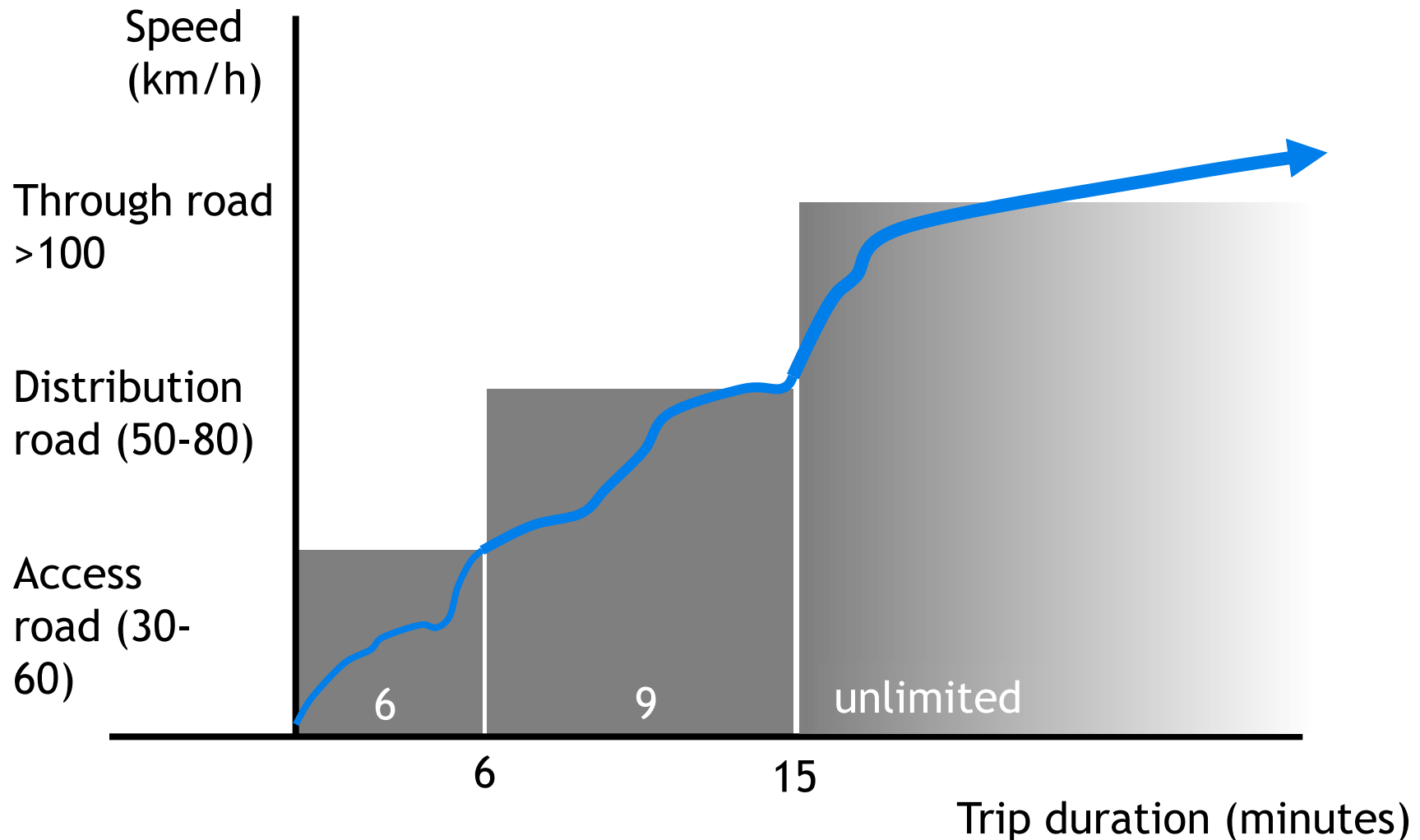


Minimal form of access road

On the network level

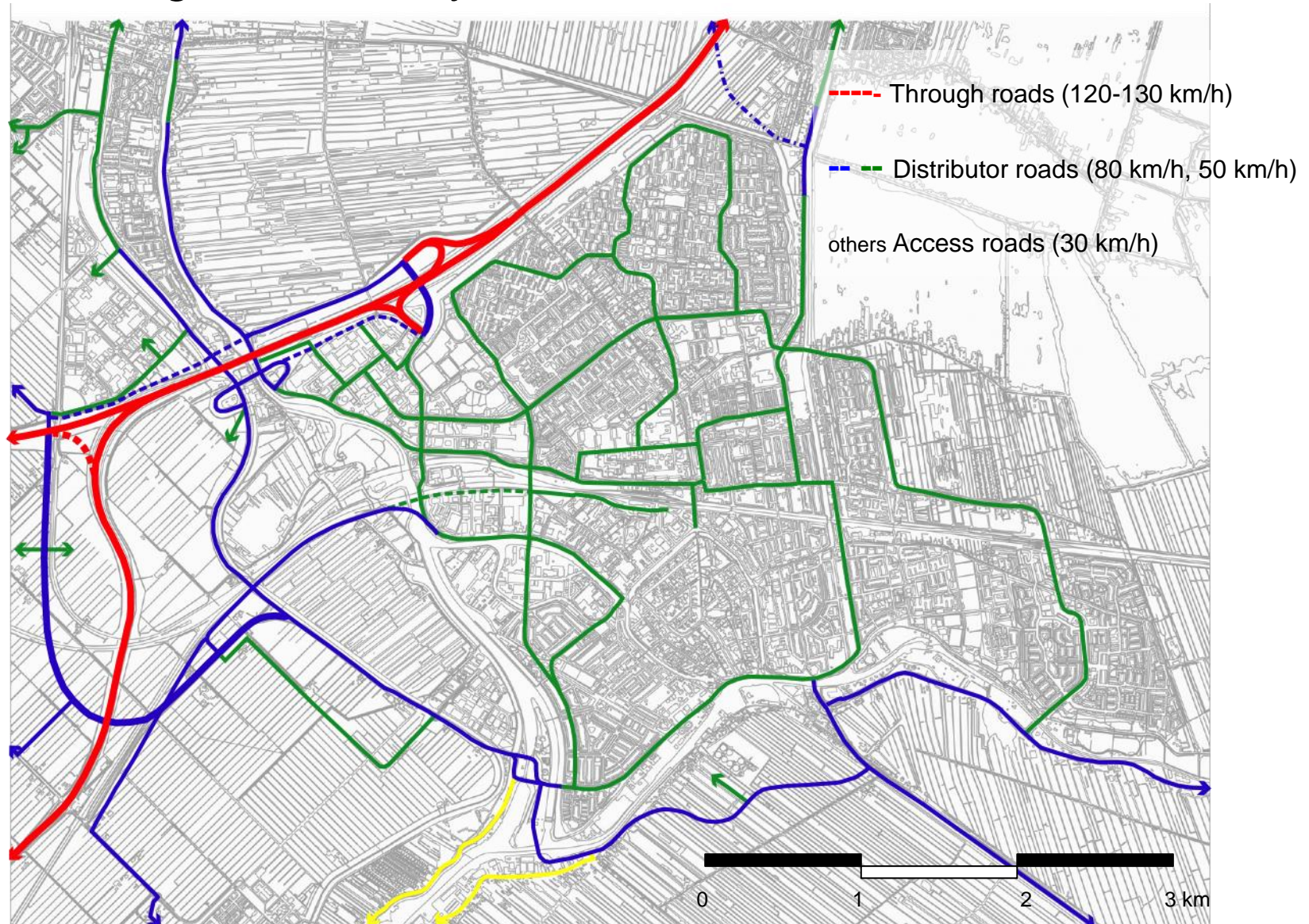
Determine the mesh width

- Trip duration determines the mesh of the network (staircase of Monderman)



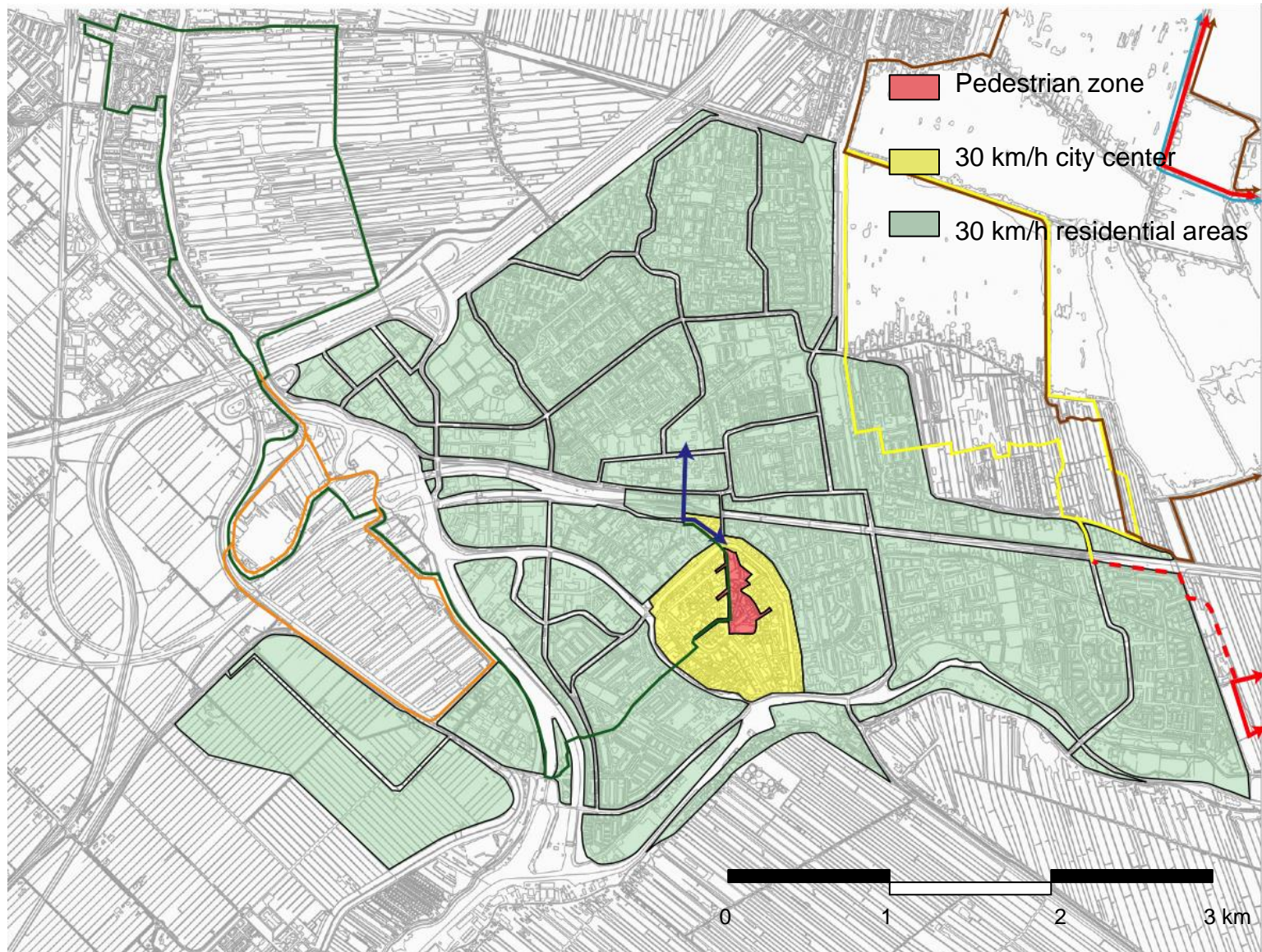
Determine the mesh width

- Road categorization city of Gouda



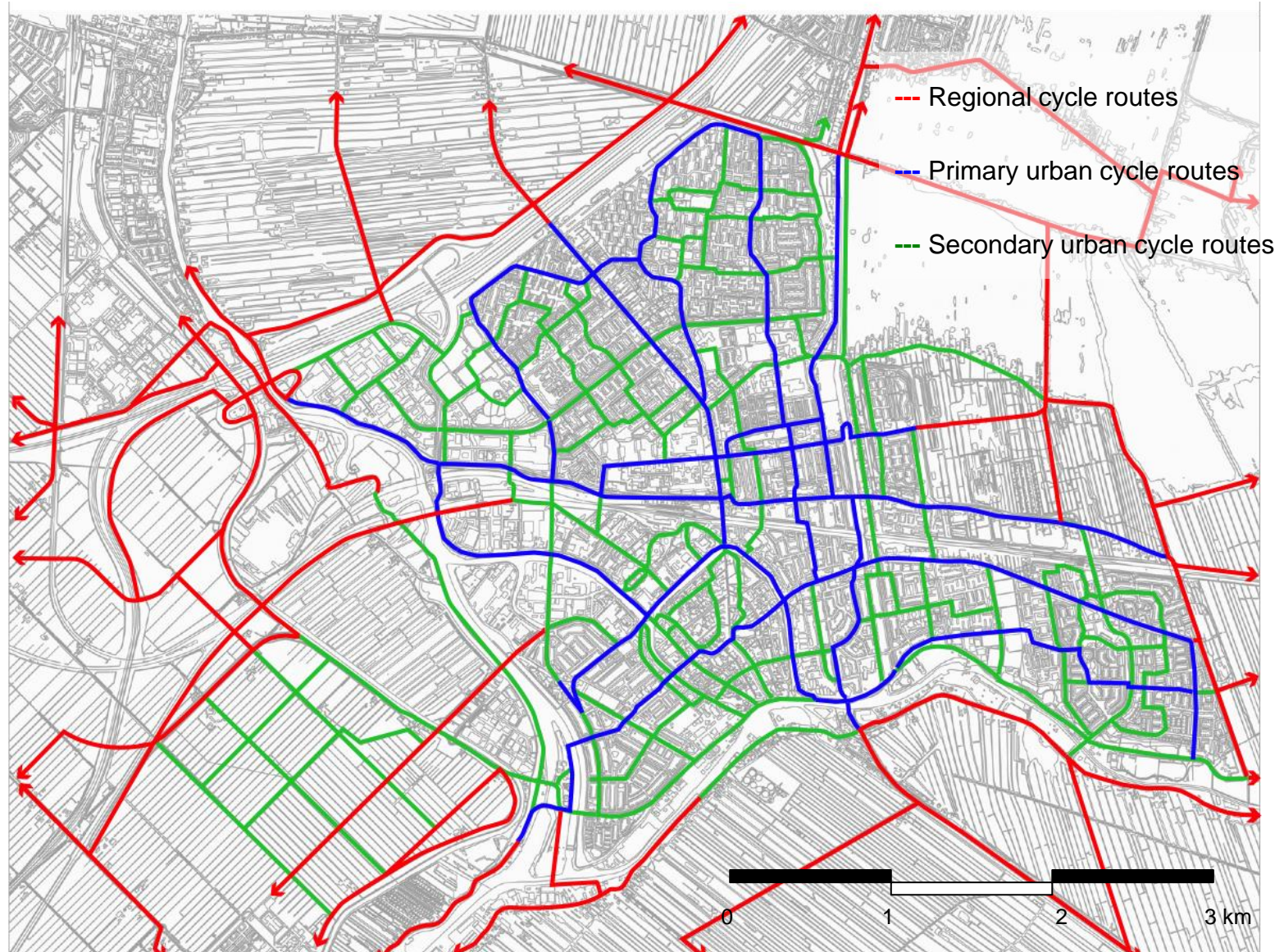
Determine the mesh width

- Traffic calmed neighbourhoods, City of Gouda



Determine the mesh width safety

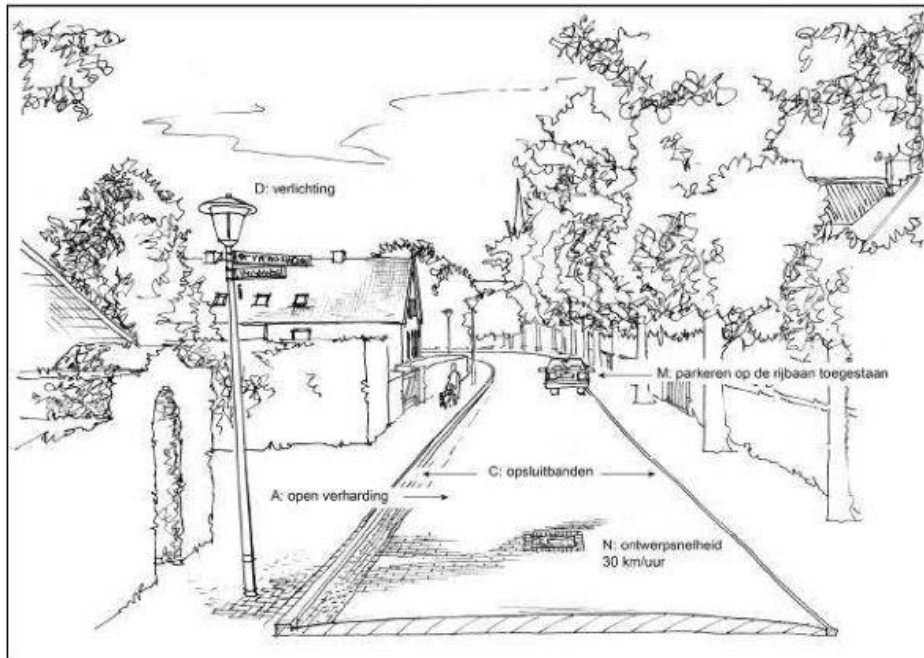
- Cycle route categorization city of Gouda



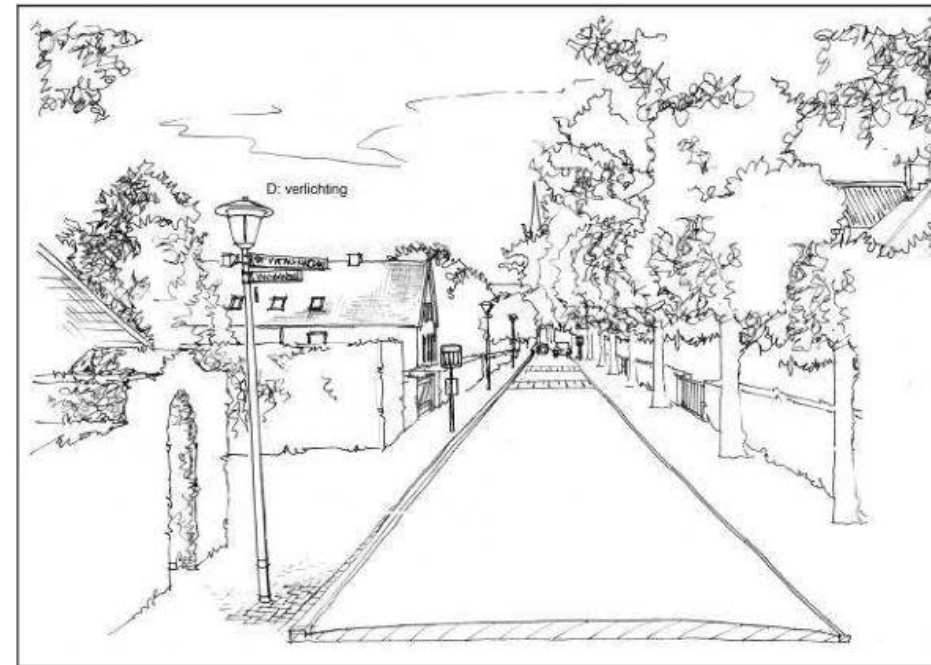
On the street level

Form recognizable ensures safe use

- 30 km/h roads: Access roads



Ideal form of access road



Minimal form of access road

- **Traffic calming:** Guarantee low travel speeds within the zone
narrow, non-asphalt, different coloring,
disalignments, uncommon, *subjective insecurity*
- **Prevent through traffic:** Create a network which accommodates local traffic but is unattractive for through traffic.
- **Gateways:** Create a logical transferpoint between to road of different categories
- **Include conflicts at intersections:** Emphasize equality between roads of the same order

Traffic calming: nice and tight



Traffic calming: even narrower



Traffic calming: Home Zones



Traffic calming: Place aspects



Traffic calming: Shared Space



Traffic calming: bumps



Traffic calming: bumps



Traffic calming: pinchers



Preventing through traffic



Gateways: visible hierarchy



Gateways: visible hierarchy



Gateways: visible hierarchy



Purposefully include conflicts



Purposefully include conflicts



Purposefully include conflicts



The next level: Shared Spaces

Shared Spaces: Haren (Groningen, NL)

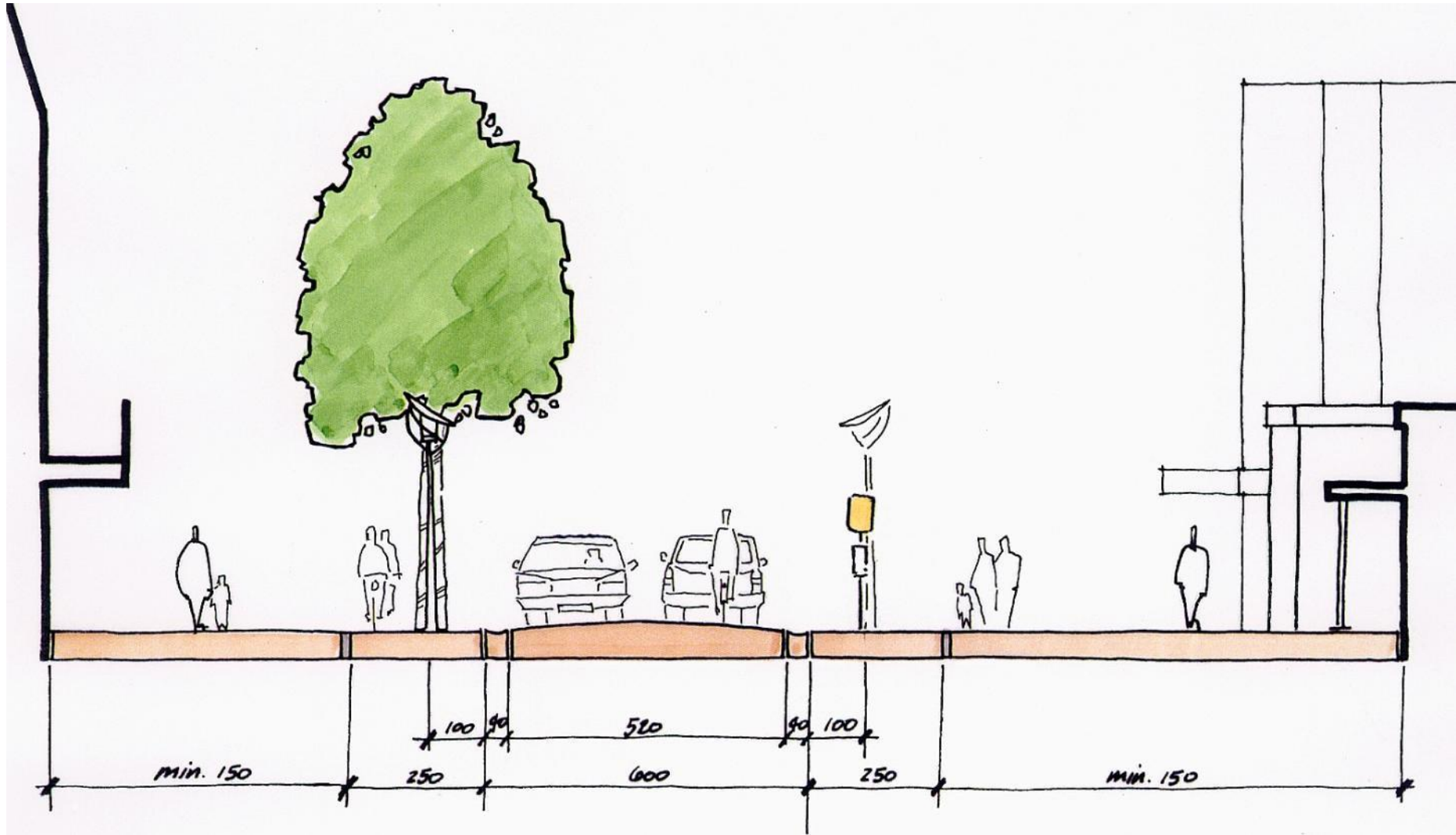




Shared Spaces: Haren (Groningen, NL)



MOBYCON



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MOBYCON



Shared Spaces: Haren (Groningen, NL)



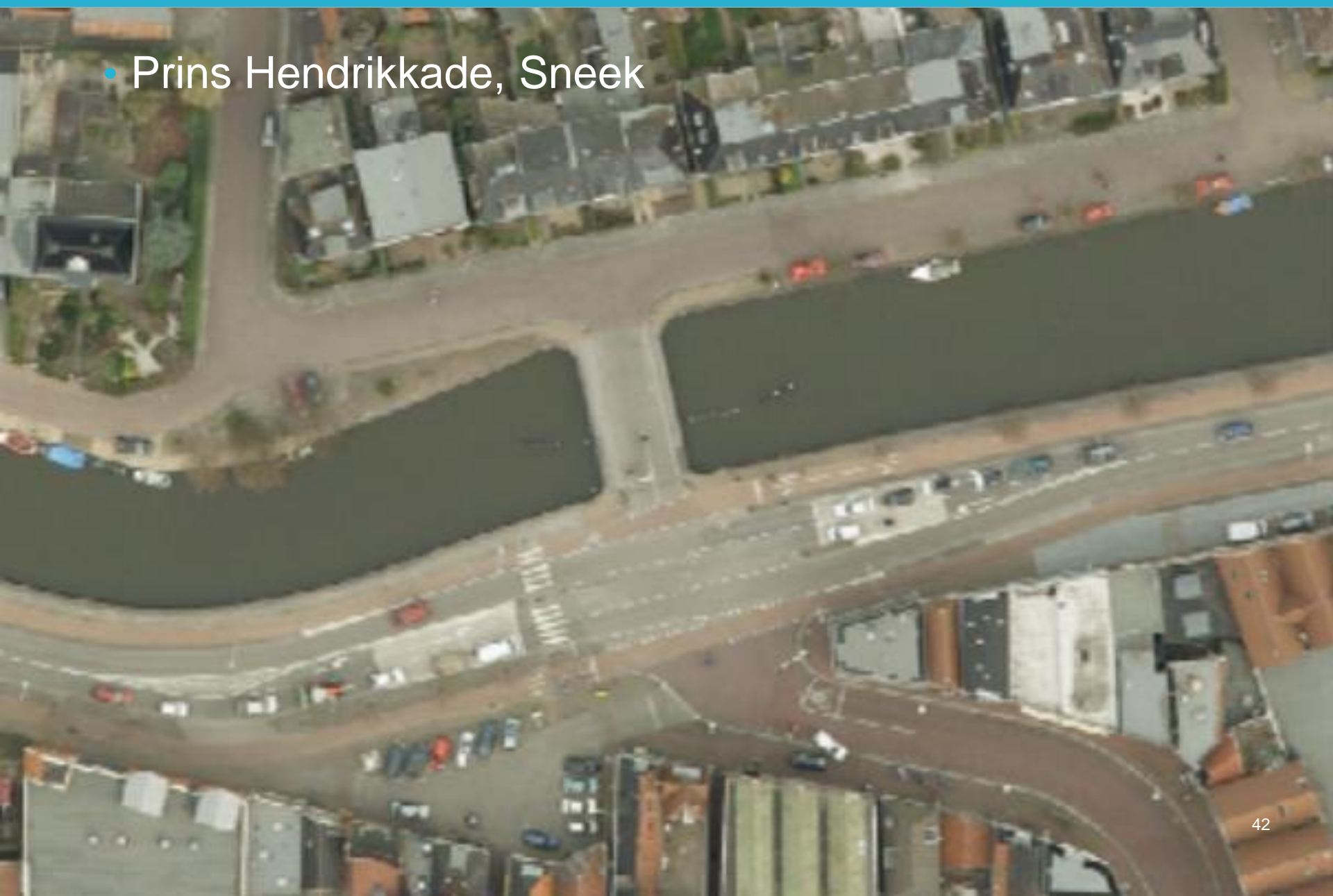
Shared Spaces: Haren (Groningen, NL)



Shared Spaces: Sneek (Friesland, NL)



- Prins Hendrikkade, Sneek



Shared Spaces: Sneek (Friesland, NL)



Shared Spaces: Sneek (Friesland, NL)



Shared Spaces: Sneek (Friesland, NL)



Opernplatz (Duisburg, Germany)



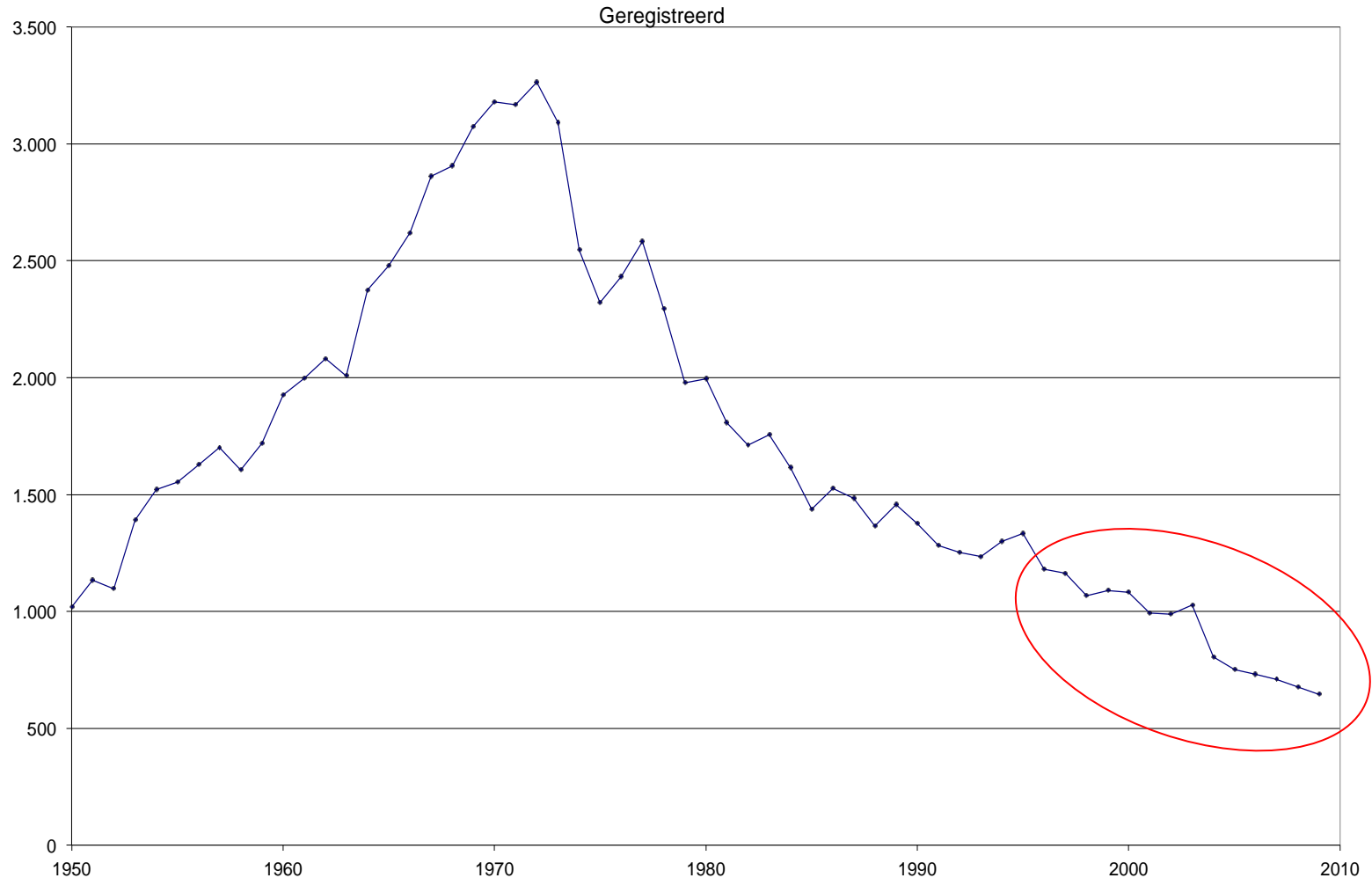
Opernplatz (Duisburg, Germany)



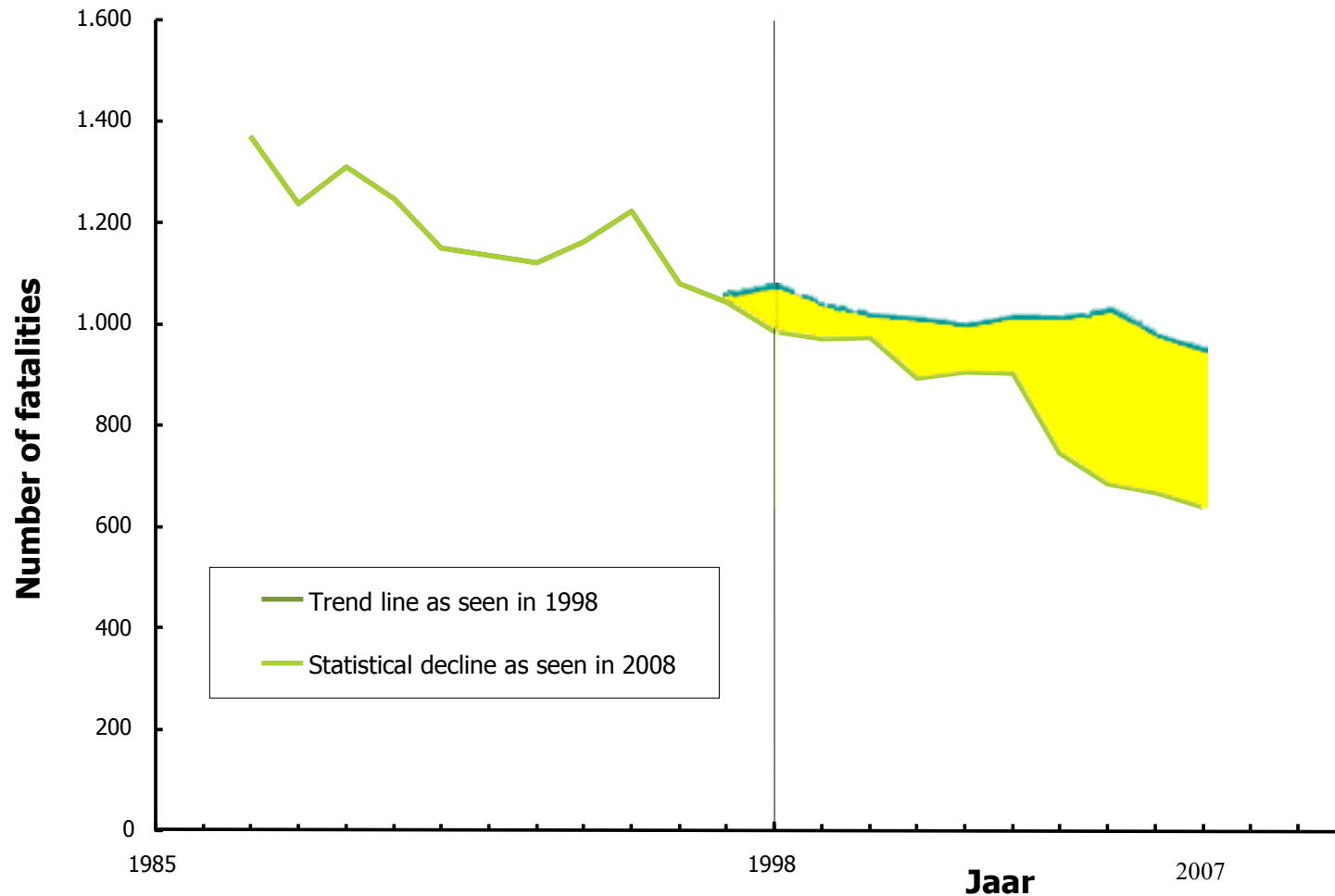
Opernplatz (Duisburg, Germany)



- Traffic fatalities in the Netherlands since 1950



- Old trendlines compared to actual decline



Thank you!



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